

From: Kelly Wright [kwright@sbtribes.com]
Sent: Wednesday, October 23, 2013 11:28 AM
To: Jennings, Jannine; Rochlin, Kevin
Cc: Sheldrake, Beth; Zokan, Jim; Woods, Jim; Tsing-Choy, Kathy; Solis, Ricardo
Subject: RE: EMF Cooperative Agreement FY 2014
Attachments: FMC 2014 workplan October 23 2013 EPA Comments Included.doc; OffSite 2014 workplan October 23 2013 EPA Comments Included.doc; Siimplot 2014 workplan October 23 2013 EPA Comments Included.doc

Categories: 11-19 to 1-10 2014

Jannine and Kevin, please find attached the current requested formats. I am in the process of preparing the three Cooperative Agreements as requested below. Additional changes have been made based on incoming analytical data collected by the Tribes during 2013. Soil and vegetation samples had elevated concentrations of total chromium (vegetation – 30 ppm and soils – 184 ppm), fluoride (vegetation – 3733 ppm), cadmium (soils – 20.12 ppm) = just to mention a few of the specifics. We recently got the 3rd round of sampling results back and will be compiling this into a report so it can be evaluated.

Tribes were in the process of performing a background for reservation wide for total metals and fluorides using our IGAP resources. This project had an approved QAPP by EPA. Jim Zokan was our Project Officer on this one.

Please review and provide comments. If no comments are needed, let me know. I will be getting these application packets together so we can get moving on them.

Thanks
Kelly

From: Jennings, Jannine [mailto:Jennings.Jannine@epa.gov]
Sent: Tuesday, October 22, 2013 8:45 AM
To: Kelly Wright
Cc: Rochlin, Kevin; Sheldrake, Beth; Zokan, Jim; Woods, Jim; Tsing-Choy, Kathy; Solis, Ricardo
Subject: EMF Cooperative Agreement FY 2014

Kelly

I am writing to remind you that the Tribes' 2013 Cooperative Agreement with EPA's Superfund Program expires next Thursday, October 31. As you are aware, the term of the agreement was recently extended to allow time for the Tribes to revise the proposed workplan consistent with comments received from EPA via conference call and email. However, to date no revised workplan or application materials have been received by either Kevin Rochlin or myself. Without an active agreement EPA can not provide financial support to the Tribes for your work and assistance at the Eastern Michaud Flats (EMF) Superfund Site.

Since we have not heard otherwise, EPA is assuming that the Shoshone Bannock Tribes are still interested in entering into a Cooperative Agreement with EPA specific to activities at EMF. We value the Tribes' involvement at this site and remain interested in providing financial assistance. However, in order to do so, EPA must receive a full Grant/Cooperative Agreement application package from the Tribes. This should include revised work plans for each operating unit and budget revisions per our August 22 conference call.

As we informed you last month, EPA's Grants Administration Office (GAO) has recommended that the 2014 Cooperative Agreement be issued as a new agreement as opposed to an amendment to the current agreement. This will allow for EPA and the Tribes to reconcile all expenditures over the past three years and start with a clean slate. In addition, the GAO has requested that a separate assistance agreement be issued for each of the three funding sources associated with this Site. Thus, we will need separate agreements for EMF FMC OU, EMF Simplot OU and EMF Off-Plant OU. While this will generate more up-front work, we are hopeful that it will eliminate some of the errors in charging that have occurred in the past.

If the Shoshone Bannock Tribes are interested in pursuing a Cooperative Agreement with EPA to address work at the EMF Site, please provide the following to EPA:

To Kevin Rochlin:

1. Assistance Agreement Application Package for Cooperative Agreement addressing work at the EMF Site, FMC OU.
2. A revised workplan addressing EPA's comments. This workplan should only address work at the FMC OU.
3. A revised budget for the above noted workplan. This budget should only address work at the FMC OU.

To Jannine Jennings:

A. Simplot OU

1. Assistance Agreement Application Package for Cooperative Agreement addressing work at the EMF Site, Simplot OU.
2. A revised workplan addressing EPA's comments. This workplan should only address work at the Simplot OU.
3. A revised budget for the above noted workplan. This budget should only address work at the Simplot OU.

B. Off-Plant OU

1. Assistance Agreement Application Package for Cooperative Agreement addressing work at the EMF Site, Simplot OU.
2. A revised workplan addressing EPA's comments. This workplan should only address work at the Simplot OU.
3. A revised budget for the above noted workplan. This budget should only address work at the Simplot OU.

Upon receipt we will review the submitted materials for completeness and consistency with our earlier comments. Following review, we will request assistance from the Grants Administration Office to process and fund the assistance agreement. Due to the late timing of your application, we may not be able to finalize the agreements prior to October 31. If this happens, EPA will not be able to reimburse the Tribes for any expenditures incurred between October 31 and the date a new agreement is approved.

If you have any questions regarding this email or the application process and materials, please contact either Kevin Rochlin (206-553-2106) or myself (206-553-2724).

I look forward to receiving your application and continuing our work together in FY2014.

Jannine

Jannine Jennings

EPA Remedial Project Manager

206-553-2724

jennings.jannine@epa.gov

2014 Simplot Operable Unit Cooperative Agreement Work Plan

Summary of the Project

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, Section 104, the Shoshone Bannock Tribes are submitting their 2014 Cooperative Agreement Work Plan. As part of this work plan, the Tribes are putting forth an abstract of activities we are intending to undertake this fiscal year. These activities include but not limited to: providing oversight for investigations; studies; and cleanup of the Eastern Michaud Flats Superfund Site. This work plan solely provides support to the Tribes for activities undergoing at the JR Simplot Don Plant Operable Unit.

Activities described in the work plan will be conducted in accordance with Section 104, of CERCLA, as amended; and will be executed by the Shoshone Bannock Tribes Environmental Waste Management Program.

This narrative and scope of work includes tasks, deliverables and budget that have been defined for this program. The task specific scope of work identifies the anticipated activity and projected due dates for fiscal year 2014 (November 1, 2013 through October 30, 2014).

EASTERN MICHAUD FLATS

Background:

The Eastern Michaud Flats Superfund Site covers approximately 2,530 acres northwest of Pocatello, Idaho. It includes two adjacent phosphate ore processing facilities. The former FMC Corporation operated a facility from the early 1940's until December 2001. The J.R. Simplot Company Don Plant is still an active facility. EPA issued a Record of Decision (ROD) for the site in 1998. A Supplemental Remedial Investigation and Feasibility Study (RI/FS) was issued in 2010 for the FMC portion of the site, while groundwater remediation at the Simplot site is ongoing.

Current and Future Activities - Simplot OU

The Simplot OU work will include but not limited to Infrastructure Improvement Plan, various Phases of the Liner Construction, PAP Subsurface Investigation, Quarterly Groundwater Reports, Annual Report, Extraction System Operation and Maintenance Plan. Each of these projects includes reviewing documentation, data, and providing comments.

Simplot Don Plant is working on a new fluoride recovery system which is designed to reduce the fluoride emissions. This may or may not impact the Off-Plant OU. Current

Toxic Release Inventory reports submitted by the J.R. Simplot Company indict that emissions impact off plant area record much higher metal releases than previously reported.

Through new investigations at Simplot in 2012, new releases of hazardous waste including phosphoric acid and likely metals have been discovered. The Tribes propose to conduct 1 to 2 rounds of sampling at the springs' and within the Portneuf River to determine if these new releases are impacting their resources. This sampling is needed to truth assumptions on travel time and pathways of contaminants given new release information.

Staff and contract employees will work on all tasks within the Simplot OU of EMF site including conducting sampling, review documents, communicate issues with public and policy makers, schedule meetings, attend meetings and other tasks in compliance with this workplan

Task 1: Document Review.

Review and comment on new documents submitted in compliance with EPA's CERCLA actions. This includes but not limited to: project updates for the Simplot OU, RD/RA Monthly Progress Reports, PAP Area Source Control Reports, Groundwater Monitoring Monthly Reports and Annual GW Report. Assist with various issues resolutions identified during these investigations or activities.

Task 2: Quarterly Groundwater Monitoring and Reports.

Provide oversight of monitoring, as appropriate. Conduct additional sampling at springs to monitor target capture zone efficiencies and ensure protection of Tribal waters. Split sampling will be done using Hydrometric who is the subcontractor already doing the collection for the PRPs, and will simply be supplying the Tribes with split samples. GW will be collected in accordance with the standing QAPPs approved for Hydrometrics through FMC and Simplot. Tribes will simply be performing additional analyses of the COCs identified from the Don Plant. During 2013, the PAP investigation during that a contaminated plume of groundwater existed beneath the Phosphoric Acid Plant. Tribes are concerned with that the historical assumptions made in reducing the number of analytes remains valid. Groundwater samples must be collected and analyzed for a full suite of chemicals of concern. These results need to be compared to historical concentrations. Analyses will include: gross alpha, gross beta, uranium 238, radium 226, radium 228, Phase II drinking water, phase V drinking water, nitrate, total ammonia, total phosphate, orthophosphate, fluoride, potassium, and sulfate.

Task 3: Public Involvement - Communications.

Provide updates to public, policy makers, and membership on current progress, issues and respond to questions, concerns if any.

Task 4: Project Management.

Quarterly reporting (1/31, 4/30, 7/31, 10/31.); participate in project meetings (e.g, the annual CERCLA meeting) as necessary; budget and resource management planning and coordination.

SBT Estimated Hours – East Michaud Flats - Simplot OU	
Task 1: Document Reviews	120
Task 2: Quarterly GW Monitoring- Reports	80
Task 3: Community Involvement	80
Task 4: Project Management	80
Total	360

SBT Estimated Costs – Eastern Michaud Flats - Simplot OU	
Personnel	\$9,214.73
Fringe Benefits	\$2,433.98
Travel	\$1,094
Supplies	\$720
Contractual – Contractor (240 hrs at \$87.50/hr)	\$21,000
Contractual Laboratory (10 samples at \$1,032 per sample)	\$10,320
Indirect Charges	\$3,145.15
Total	\$47,927.86

2014 Off-Plant Operable Unit Cooperative Agreement Work Plan

Summary of the Project

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, Section 104, the Shoshone Bannock Tribes are submitting their 2014 Cooperative Agreement Work Plan. As part of this work plan, the Tribes are putting forth an abstract of activities we are intending to undertake this fiscal year. These activities include but not limited to: providing oversight for investigations; studies; and cleanup of the Eastern Michaud Flats Superfund Plant. This work plan solely provides support to the Tribes for activities undergoing at the Off-Plant Operable Unit.

Activities described in the work plan will be conducted in accordance with Section 104, of CERCLA, as amended; and will be executed by the Shoshone Bannock Tribes Environmental Waste Management Program.

This narrative and scope of work includes tasks, deliverables and budget that have been defined for this program. The task specific scope of work identifies the anticipated activity and projected due dates for fiscal year 2014 (November 1, 2013 through October 30, 2014).

EASTERN MICHAUD FLATS

Background:

The Eastern Michaud Flats Superfund Site covers approximately 2,530 acres northwest of Pocatello, Idaho. It includes two adjacent phosphate ore processing facilities. The former FMC Corporation operated a facility from the early 1940's until December 2001. The J.R. Simplot Company Don Plant is still an active facility. EPA issued a Record of Decision (ROD) for the site in 1998. A Supplemental Remedial Investigation and Feasibility Study (RI/FS) was issued in 2010 for the FMC portion of the site, while groundwater remediation at the Simplot site is ongoing.

The Site includes the Simplot Don Plant and adjacent Simplot-owned land (the Simplot OU), the former area of operation of the FMC Elemental Phosphorus Plant and adjacent FMC-owned land (the FMC OU), and land surrounding the Simplot and FMC Site OUs that may have been impacted by airborne releases from the two facilities (Off-Plant OU; see Figure 1-1).

The EMF Site was placed on the National Priorities List (NPL) in 1991. The Remedial Investigation (RI) Report was completed in 1996 (Bechtel Environmental Inc. [BEI] 1996), the Feasibility Study (FS) Reports for each of the Site areas were completed in

1997 (BEI 1997, MFG 1997) and EPA issued the Record of Decision (ROD) in 1998 (EPA 1998a). Remedial design/remedial action (RD/RA) consent decrees that included actions in the Off-Site OU were signed by both Simplot and FMC, however, they were not signed by the EPA due to challenges by the Shoshone-Bannock Tribes. Currently, Simplot is in the process of implementing a RD/RA Consent Decree for the Simplot Plant Area (EPA 2002) and FMC is performing a supplemental RI/FS. No remediation actions have been implemented in the Off-Plant OU.

In 2008, a series of meetings were held between the EPA, Idaho Department of Environmental Quality (IDEQ), Shoshone-Bannock Tribes, Simplot and FMC to identify and resolve issues associated with the Off-Plant OU. These include EPA concerns with fluoride, particularly with the 1995 ERA. As a result of these concerns, a reassessment of potential risk from fluoride was proposed. The first phase of the reassessment was presented in the Draft Reassessment of Ecological Risks from Fluoride (NewFields 2008a). To support the reassessment, a draft report that provided a summary of studies and associated data and findings related to fluoride in the Off-Plant OU was prepared in August 2008 (NewFields 2008b). Since the initial ERA was prepared by EPA prior to the release of the most recent EPA ERA guidance documents (EPA 1997, 1998b), the reassessment was intended as an update to the original ERA using current guidance and updated toxicological information. The reassessment concluded that the updated process reduced uncertainty compared to the 1995 ERA evaluations. Where the 1995 ERA concluded risk to several measurement receptors, the risk reassessment concluded that receptors are likely at low risk from exposure to fluoride.

Based on the results of the Phase I reassessment, EPA requested that additional data be collected to provide an updated estimate of fluoride exposure to ecological receptors and to provide a more detailed evaluation of the toxicity of fluoride to birds and mammals. A SAP (Phase II) was completed and approved in 2009 (NewFields 2009) followed by a field investigation (Phase III). A detailed discussion of the available toxicity data for effects of fluoride on birds and mammals was completed and approved on a parallel track (Formation Environmental 2009).

TASK #1: Current and Future Activities - Off-Plant

The Off Plant OU work will consist of reviewing analytical data received in 2013 from the vegetation sampling that was analyzed for total fluoride to characterize and determine risk to cultural resources including all receptors where fluoride and total metal contamination may come to be located above a level of ecological concern. In the summer of 2013, the Shoshone Bannock Tribes collected soil and vegetation samples across the Fort Hall Reservation where elevated concentrations of fluorides and various total metals were detected. The Tribes will be assessing how air emissions may be impacting the Off-Plant Operable Unit.

Staff and contract employees will work on all tasks within the Off-plant OU of EMF site including conducting sampling, review documents, communicate issues with public and policy makers, schedule meetings, attend meetings and other tasks in compliance with

this workplan.

Sub-task 1: Investigation

Review, comment and participate in discussions on the elevated metal and fluoride concentrations detected during a tribally lead sampling event looking at soils and vegetation that is culturally utilized.

Sub-task 2: Monitoring

Comparison and evaluation with existing emission data and the annual fluoride forage data. 45 exceedances have been detected at different locations over the past twenty years with increasing numbers of violations per year over time. Additional investigation needs to address these elevated concentrations in soils and vegetation samples. A QAPP was developed using the IGAP resources and approved by the US EPA. This document may need to be modified allowing additional samples to be collected in other locations.

Sub-task 3: Project and Community Involvement

Provide regular updates to community through district meetings; provide project status updates to Policy makers.

Sub-task 4: Project Management

Quarterly reporting (1/31, 4/30, 7/31, 10/31.); budget and resource management planning and coordination; and participate in project meetings as necessary.

SBT Estimated Hours – East Michaud Flats - Off-Plant	
Sub-task 1: Investigation	80
Sub-task 2: Monitoring	120
Sub-task 3: Project / Community Involvement	40
Sub-task 4: Project Management	32
Total Hours	272

SBT Estimated Costs – Eastern Michaud Flats - Off-Plant	
Personnel	\$7,395.55
Fringe Benefits	\$1,953.46
Contractual (80 hours at \$87.5/hr)	\$7,000
Analytical Services (6 soil and 6 vegetation analyses \$667 per sample)	\$8,004
Indirect Charges	\$2,524.23
Total	\$26,877.24

2014 FMC Operable Unit Cooperative Agreement Work Plan

Summary of the Project

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, Section 104, the Shoshone Bannock Tribes are submitting their 2014 Cooperative Agreement Work Plan. As part of this work plan, the Tribes are putting forth an abstract of activities we are intending to undertake this fiscal year. These activities include but not limited to: providing oversight for investigations; studies; and cleanup of the FMC Operable Unit.

Activities described in the work plan will be conducted in accordance with Section 104, of CERCLA, as amended; and will be executed by the Shoshone Bannock Tribes Environmental Waste Management Program.

This narrative and scope of work includes tasks, deliverables and budget that have been defined for this program. The task specific scope of work identifies the anticipated activity and projected due dates for fiscal year 2014 (November 1, 2013 through October 30, 2014).

EASTERN MICHAUD FLATS

Background:

The Eastern Michaud Flats Superfund Site covers approximately 2,530 acres northwest of Pocatello, Idaho. It includes two adjacent phosphate ore processing facilities. The former FMC Corporation operated a facility from the early 1940's until December 2001. The J.R. Simplot Company Don Plant is still an active facility. EPA issued a Record of Decision (ROD) for the site in 1998. A Supplemental Remedial Investigation and Feasibility Study (RI/FS) was issued in 2010 for the FMC portion of the site, while groundwater remediation at the Simplot site is ongoing.

This site consists of three operable units: FMC OU, Simplot OU and Off-Plant property. A 1998 ROD was completed to address the EMF site. Current efforts are on the design and implementation of these remedies and supplemental investigations are ongoing.

In 2006 and again in June 2010, EPA issued a Unilateral Administrative Order requiring FMC to conduct removal actions to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the actual or threatened release of hazardous substances at or from the RCRA pond area of this site. Phosphorus within the RCRA Units has been reacting and generating phosphine at concentrations which could pose a significant human health risk if the gas escapes to ambient air.

As for the September 2012 Interim Record of Decision Amendment, FMC will begin cleanup work through a Unilateral Administrative Order from EPA issued in 2013.

The FMC OU is the former FMC elemental phosphorus manufacturing plant, consisting of approximately 1,450 acres in southeastern Idaho, northwest of Pocatello, most of which is on the Fort Hall Indian Reservation. This land has been zoned and used for industrial purposes since the 1940s.

FMC began processing phosphate ore and manufacturing elemental phosphorus at its plant in 1949 and continued until the plant ceased operations in December 2001, and was demolished. Plant processes included the use of surface impoundments as waste ponds for ignitable-reactive elemental phosphorus and other metals-containing and gamma-emitting wastes. Many of these impoundments are RCRA regulated units. Those that are not RCRA regulated units are part of the FMC OU. FMC also used Waste Material (predominately gamma-emitting slag) as fill to grade its property and expand its operations area.

Ignitable-reactive elemental phosphorus and other hazardous substances containing wastes, including high concentrations of arsenic, along with gamma radiation are in FMC OU soils and groundwater.

The decision by EPA on the interim remedial action to be implemented at the FMC OU is embodied in an Interim Record of Decision (“Interim ROD Amendment”), executed on September 27, 2012, on which the Tribes did not concur, and on which the State concurred. The Interim ROD Amendment includes a responsiveness summary to public comments, including all formal Tribal comments. Notice of the final plan was published in accordance with Section 117(b) of CERCLA, 42 U.S.C. § 9617(b).

The FMC OU will include finalization of the Interim Record of Decision Amendment including remedial design. The Tribes plan to submit written concerns on the FMC OU Proposed Plan response to comment to ensure the administrative record accurately reflects Tribal comments and concerns.

The Tribes will be providing oversight during this entire process. As part of this, the Remedial Design Work Plan will involve at a minimum, the following elements:

1. Remedial Action

I. Design and Construction Elements

- Placement of evapotranspiration caps
- Placement of soil caps
- Excavation of soil from Parcel 3
- Cleaning underground concrete piping
- Installation of the groundwater extraction system
- Installation of engineering controls
- Integration of existing RCRA pond caps with new caps

2014 FMC Cooperative Agreement Work Plan
Thursday, October 23, 2013

II. Monitoring Elements

- Implementation and monitoring of institutional controls
- Implementation of a long-term groundwater monitoring plan
- Implementation of a gas monitoring program
- Implementation of a FMC OU-wide storm water runoff monitoring plan

III. Operation and Maintenance Elements

- Implementation of an operation and maintenance plan.

2. Construction Quality Assurance/Quality Control Plan must:

- (i) Identify, and describe the responsibilities of, the organizations and personnel implementing the quality assurance/quality control (“QA/QC”);
- (ii) Describe verification activities, such as inspections, sampling, testing, monitoring, and production controls, under the QA/QC;
- (iii) Describe industry standards and technical specifications used in implementing the QA/QC;
- (iv) Describe procedures for tracking construction deficiencies from identification through corrective action;
- (v) Describe procedures for documenting all QA/QC activities; and

3. Emergency Response Plan (“ERP”) must include:

- (i) Name of the person or entity responsible for responding in the event of an emergency incident;
- (ii) Plan and date(s) for meeting(s) with all appropriate authorities under the circumstances, including emergency response personnel and hospitals if relevant;
- (iii) Spill Prevention, Control, and Countermeasures (SPCC) Plan;
- (iv) Notification activities in the event of a release of hazardous substances requiring reporting under Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (“EPCRA”), 42 U.S.C. § 11004; and
- (v) Description of all necessary actions to ensure compliance with Emergency Response in the event of an occurrence during the performance of the Work that causes or threatens a release of Waste Material from the FMC OU or Site that constitutes an emergency or may present an immediate threat to public health or welfare or the environment.

4. Field Sampling Plan and Remedial Design Quality Assurance Project Plan. The FSP supplements the QAPP and addresses all sample collection activities. The FSP must be written so that a field sampling team unfamiliar with the project would be able to gather the samples and field information required. Respondent shall develop the FSP consistent with *Guidance for Conducting Remedial Investigations and Feasibility*

Studies, EPA/540/G-89/004 (---1988), and in accordance with Section XI (Quality Assurance, Sampling, and Data Analysis);

5. O&M Plan. The O&M Plan must include:

- (i) Description of and schedule for each operation task and maintenance task;
- (ii) Description of and schedule for periodic inspections of equipment and components;
- (iii) Description of O&M requirements;
- (iv) Description of instrumentation and monitoring;
- (v) Sample checklists and periodic reports;
- (vi) Description and analysis of potential operating problems, including common and/or anticipated remedies;
- (vii) Description of routine monitoring and laboratory testing;
- (viii) Description of required data collection, laboratory tests and their interpretation;
- (ix) Schedule of monitoring frequency and procedures;
- (x) Description of verification sampling procedures, if Performance Standards are exceeded during routine monitoring;
- (xi) Description of alternative operations and maintenance in case of systems failure, including:
 - (1) Alternative procedures to prevent the release or threatened release of Waste Material which may endanger public health and the environment or exceed Performance Standards;
 - (2) Analysis of vulnerability and additional resource requirements should a failure occur; and,
 - (3) Notification and reporting requirements should O&M systems fail or be in danger of imminent failure;
- (xii) Description of corrective action to be implemented in the event that Performance Standards are exceeded, and a schedule for implementing these corrective actions;
- (xiii) Description of monitoring equipment and monitoring components, including identifying information, maintenance requirements and schedule, and replacement requirements and schedule; and
- (xiv) Description of records and reports that will be generated during O&M, such as daily operating logs, laboratory records, records of operating costs, reports regarding emergencies, personnel and maintenance records; and provisions for preparation and submission of monthly and annual O&M summary reports to EPA.

6. Performance Standards Verification Plan (“PSVP”). The PSVP must include the following elements:

- (i) A description of each of the Performance Standards required by the Interim ROD Amendment;

- (ii) A description of plans to ensure that each Performance Standard will be met; and
- (iii) A description of activities to be performed to determine whether performance standards have been met.

7.0 Transportation and Off-Site Disposal Plan (“TODP”). The TODP must include:

- (i) Proposed locations and routes for off-site shipment of waste material;
- (ii) Identification of communities affected by shipment of waste material; and
- (iii) Description of plans to minimize impacts on affected communities.

8.0 Provisions for continuing groundwater monitoring, sampling, analysis and reporting. The Groundwater Monitoring Plan will include but not limited to a schedule for completion of the Remedial Action Work Plan.

9.0 Performance Testing

Review the Performance Testing Work Plan (“PTWP”) and observe the testing described in the Work Plan(s) which are as follows:

- **Groundwater Remedy Water Treatment Testing**
This will be generating a report that will include an evaluation of each technology's effectiveness, implementability, and actual results as compared with predicted results. The report shall provide recommendations for implementation of technologies and design criteria for those technologies recommended.
- **Gamma Cap Thickness Effectiveness Test**

The purposes of the Gamma Cap Thickness Effectiveness Test will be to:

- a. Determine whether the one foot of native soil cap or “gamma” cap meets the external gamma radiation Performance Standard (and remedial action objective) in the Interim ROD Amendment, or whether more material is required,
- b. Develop construction QA/QC methods to demonstrate achievement of the Performance Standard.
- c. Prepare a Performance Test (“PT”) Evaluation Report.
- **Preliminary (30%) RD.** This plan will at a minimum include:
 - a. Design analysis, including assumptions and parameters, design restrictions, design calculations, process performance criteria, appropriate unit processes for the treatment train, and expected removal or treatment efficiencies for both the process and waste (concentration and volume);
 - b. Preliminary drawings and specifications;
 - c. Preliminary description of access requirements and proposed easements;
 - d. Preliminary O&M Plan and O&M Manual;
 - e. A description of how the Remedial Action will be implemented in a manner that minimizes environmental impacts consistent with EPA's

Principles for Greener Cleanups, OSWER (Aug. 2009) and Region 10's Clean and Green Policy (Aug. 2009); and

f. Preliminary RA Schedule.

- **Intermediate (60%) RD** - If Respondent determines during RD planning that a 60% Intermediate RD is necessary, we will need to review and comment on the Intermediate (60%) RD.

- **Final RD**

The Pre-final RD must include, at a minimum:

- a. Complete set of construction drawings and specifications that are:
 - Certified by a Professional Engineer registered in the State;
 - Suitable for bid advertisement; and
 - Follow the Construction Specifications Institute's Master Format 2012;
- b. Survey and engineering drawings showing existing FMC OU elements, conditions, borders, and easements;
- c. Pre-Final (95%) versions of the same elements and deliverables as are required for the previously submitted (Preliminary and Intermediate, if developed) RD;
- d. Specification for photographic documentation of the RA;
- e. Description of Respondent's method for selecting the construction contractor(s);

- **Remedial Action.** The Remedial Action Work Plan shall include the following:

- a. Schedule for completion of the Remedial Action;
- b. Method for selection of the contractor;
- c. Schedule for developing and submitting other required Remedial Action plans;
- d. Final CERCLA Groundwater Monitoring Plan;
- e. Methods for satisfying access requirements;
- f. Methodology for implementing the Operation and Maintenance Plan;
- g. Methodology for implementing the Emergency Response Plan,;
- h. Tentative formulation of the Remedial Action team;
- i. Construction Quality Assurance Plan (by the construction contractor);
- j. Performance Standards Verification Plan; and
- k. Procedures and plans for the decontamination of equipment and the disposal of contaminated materials.

- **Final CERCLA Groundwater Monitoring Plan** will provide for the following:

- a. EPA Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems (EPA 600/R-08/003, 2008) will be used to evaluate the effectiveness of the Pump and Treat System.
- b. Implementation of the Final CERCLA Groundwater Monitoring Plan will be coordinated with Respondent's RCRA and Calciner Pond remedy groundwater monitoring programs.

- c. Once installation of the groundwater extraction system has been completed and the annual average pumping rate has been achieved, an addenda to the plan will specify the appropriate monitoring locations at the FMC OU and Off-Plant OU to measure progress toward achieving the Performance Standards for the groundwater extraction and treatment system, including the types of statistical tools to be used to evaluate the groundwater data, and the system's effectiveness.

Based on earlier Government to Government Consultation, EPA stated that during this that an EPA would be on-site during all activities. Tribes will be joining these activities to ensure that compliance is properly being followed.

Staff and contract employees will work on all tasks within the FMC OU of EMF site including conducting sampling, review documents, communicate issues with public and policy makers, schedule meetings, attend meetings and other tasks in compliance with this workplan.

Task 1: Remedial Design, Remedial Action and Other Documents.

Assist with a variety of components identified above for Remedial Design/ Remedial Actions. In this process, the Tribes will be reviewing, commenting and participating in oversight of the remedial design and construction activities.

Task 2: Public Involvement – Communications.

Provide updates to public, policy makers, and membership on current progress, issues and respond to questions, concerns if any.

Task 3: UAO - All Ponds

Several of the RCRA Ponds have been identified as releasing and treating toxic gas generation from underneath the caps. Tribes will continue to review, comment and participate in the various activities associated with this UAO and work with EPA to develop the Post Closure Monitoring Plan. Current UAO is written addressing the gas generation but eventually source control should be utilized which could be part of the Post Closure Monitoring Plan.

Task 4: Monitoring - Groundwater, Leachate Collection Water and Phosphine Monitoring:

Tribes have requested to be onsite during all cleanup activities including the project studies for the RA/RD process. This will include but not limited to: reviewing, commenting independent monitoring, and oversight. Periodically, over the 5 year review process of the IRODA, the Tribes are requesting that all chemicals of concern are analyzed to ensure that historical assumptions made in reducing the number of analytes remains valid. At a minimum, during the five year review cycle these wells should be analyzed and compared to historical concentrations. Based on this additional groundwater and leachate collection water needs to be analyzed for a full suite of COCs. Analyses will include: gross alpha, gross beta, uranium 238, radium 226, radium 228, Phase II drinking water, phase V drinking water, nitrate, total ammonia, total phosphate,

orthophosphate, fluoride, potassium, and sulfate.

Task 5: Project Management.

Quarterly reporting (1/31, 4/30, 7/31, 10/31.); budget and resource management planning and coordination

SBT Estimated Hours – East Michaud Flats - FMC OU	
Task 1: Remedial Design/ Remedial Action	180
Task 2: Public Involvement/ Communications	124
Task 3: UAO's	240
Task 4: Monitoring Oversight	240
Task 5: Project Management	80
Total	848

SBT Estimated Costs – Eastern Michaud Flats - FMC OU	
Personnel	\$23,238.16
Fringe Benefits	\$6,138.13
Travel	\$1,991
Supplies	\$736.38
Contractual - Contractor (400 hrs at \$87.50/hr)	\$35,000
Contractual Laboratory (10 samples at \$1,032 per sample)	\$10,320
Indirect Charges	\$7,931.60
Total	\$85,355.27